Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application :

1.   (currently amended) Method for error correction of an encoded data stream including the steps of:

      - saving the demodulated data stream in an input buffer ~~(2)~~;

      - performing a first correction process on-the-fly in the input buffer ~~(2)~~;

      - transferring the data to an external DRAM ~~(3)~~ after correction;

      - copying the data from the external DRAM ~~(3)~~ to an embedded SRAM ~~(11)~~;

      - starting a multipass correction in the embedded SRAM ~~(11)~~; and

      - copying the corrected data back from the embedded SRAM ~~(11)~~ to the external DRAM ~~(3)~~ after the multipass correction.

2.   (currently amended) Method according to claim 1, ~~whereby~~ wherein streaming discontinuities of less than one row are corrected immediately in the input buffer ~~(2)~~ while streaming discontinuities of one row or more are corrected in the external DRAM ~~(3)~~.

3.   (currently amended) Method according to claim 1 ~~or 2~~, **further** including the step of using the external DRAM ~~(3)~~ for deinterleaving.

4.   (currently amended) Method according to ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein the data stream includes data frames consisting of data rows and columns including horizontal and vertical parity data for correcting errors in the data frame.

5.   (currently amended) Method according to ~~one of claims 1 to 4, characterized in that~~ claim 1, wherein the size of the input buffer ~~(2)~~ is at least twice the number of bytes per row of the data frame.

6.   (currently amended) Method according to ~~one of claims 1 to 5, characterized in that~~ claim 1, wherein the input buffer ~~(2)~~ is an SRAM.

7.   (currently amended) Method according to ~~one of claims 1 to 6~~ claim 1, further including the step of storing status bits in a status memory ~~(12)~~, the status bits indicating if a row of the data frame is correct or not.

8.   (currently amended) Device for error correction of an encoded data stream, including:

    - an input buffer ~~(2)~~ for saving the demodulated data stream and performing a first correction process on-the-fly;

        an external DRAM ~~(3)~~ to which the data are transferred after correction;

    - an embedded SRAM ~~(11)~~ for performing a multipass correction on the corrected data;

    - means ~~(9)~~ for copying the data frame from the external DRAM ~~(3)~~ to the embedded SRAM ~~(11)~~; and

        - means ~~(13)~~ for copying the corrected data back from the embedded SRAM ~~(11)~~ to the external DRAM ~~(3)~~ after the multipass correction.

9.   (currently amended) Device according to claim 8, further including a deinterleaver ~~(4)~~ for deinterleaving and/or for correcting streaming discontinuities in the external DRAM ~~(3)~~.

10.   (currently amended) Apparatus for reading from and/or writing to recording media, ~~characterized in that~~ wherein it uses a method according to claim 1. ~~anyone of claims 1 to 7 or comprises a device according to anyone of claims 8 or 9 for error correction of an encoded data stream~~.